

WHAT IS CLAIMED IS:

1                    1.     A sheathed scalpel comprising:  
2                    a handle having a proximal end and a distal end;  
3                    a blade attached to the distal end of the handle and having a cutting edge and a  
4                    tip; and  
5                    a sheath attached to the handle and having a central passage configured to  
6                    receive the blade, wherein the sheath covers the blade when the blade is retracted within the  
7                    central passage and exposes the cutting edge of the blade but not the tip when the blade is  
8                    advanced within the central passage.

1                    2.     A sheathed scalpel as in claim 1, wherein the central passage has an  
2                    aperture.

1                    3.     A sheathed scalpel as in claim 2, wherein the cutting edge of the blade  
2                    is bowed and exposed through the aperture when the blade is advanced.

1                    4.     A sheathed scalpel as in claim 3, wherein the bowed cutting edge  
2                    extends beyond the aperture by a depth in the range from 2 mm to 5 mm when the blade is  
3                    fully advanced.

1                    5.     A sheathed scalpel as in claim 2, wherein the aperture is diagonal  
2                    relative to a longitudinal axis of the handle.

1                    6.     A sheathed scalpel as in claim 1, wherein the sheath has a structure  
2                    disposed thereon to mate with a structure on the handle so as to prevent further advancement  
3                    of the blade when the blade is advanced so that the blade tip remains covered.

1                    7.     A sheathed scalpel as in claim 1, wherein the central passage has an  
2                    internal edge near a distal end thereof and the handle has an edge which mates with the  
3                    internal edge of the sheath so as to prevent further blade advancement.

1                    8.     A sheathed scalpel as in claim 1, further comprising a detent  
2                    mechanism for limiting travel of the sheath relative to the blade.

1                    9.     A sheathed scalpel as in claim 8, wherein the detent mechanism  
2 comprises a series of axially spaced apart ribs or grooves on the handle and a spring detent or  
3 tab on the sheath.

1                    10.    A sheathed scalpel as in claim 1, further comprising ribs on an inside  
2 surface of the sheath.

1                    11.    A sheathed scalpel as in claim 1, wherein the sheath is transparent or  
2 translucent.

1                    12.    A sheathed scalpel as in claim 1, wherein the blade is fixed relative to  
2 the handle and the sheath advances and retracts relative to both the handle and the blade.

1                    13.    A sheathed scalpel as in claim 1, wherein the sheath is fixed relative to  
2 the handle and the blade advances relative to both the handle and the sheath.

1                    14.    A sheath for use with a scalpel having a handle, a blade attached to the  
2 handle, and a structure on the handle, the sheath comprising:

3                    an elongated housing having a central passage configured to receive the blade  
4 and an aperture disposed to expose a cutting edge of the blade when the blade is advanced  
5 within the central passage, wherein the housing fully covers the blade when the blade is  
6 retracted within the housing;

7                    wherein the housing has a structure disposed thereon to mate with a structure  
8 on the handle so as to prevent further advancement of the blade when the blade is advanced  
9 so that a tip of the blade remains covered while a bowed cutting edge of the blade is exposed  
10 through the aperture.

1                    15.    A method for making a small incision through skin overlying an  
2 intercostal space, the method comprising:  
3                    providing a scalpel having a sheath;  
4                    retracting the sheath relative to the scalpel so that a part of a scalpel blade is  
5 exposed beyond the sheath; and  
6                    advancing the scalpel blade through skin overlying the intercostal space to  
7 form the small incision, wherein a cutting depth of the scalpel blade through the overlying  
8 skin is limited by the sheath.

1 16. A method as in claim 15, wherein retracting comprises exposing only a  
2 bowed cutting edge of the blade so that an exposed area of the scalpel blade is reduced.

1 17. A method as in claim 15, wherein the sheath is retracted to provide a  
2 cutting depth of the blade in the range from 2 mm to 5 mm.

1 18. A method as in claim 15, wherein the retracting leaves a leading tip of  
2 the scalpel blade covered within the sheath.

1 19. A method as in claim 15, wherein retracting comprises engaging an  
2 internal edge of the sheath with an edge of a scalpel handle.

1 20. A method as in claim 15, further comprising aligning the scalpel blade  
2 with an aperture of the sheath with ribs on an inside surface of the sheath.

1 21. A method as in claim 15, further comprising extending the sheath over  
2 the scalpel blade so that the scalpel blade is housed within the sheath.

1 22. A method as in claim 21, wherein extending comprises engaging a  
2 spring detent or tab on the sheath with at least one outer rib or groove on a scalpel handle.

1 23. A method as in claim 21, further comprising re-retracting the sheath  
2 relative to the scalpel so that the scalpel blade may be advanced at least a second time.

1 24. A method as in claim 15, further comprising advancing a blunt  
2 member through the small incision and the intercostal space above the heart to establish an  
3 intercostal access tract.

1 25. A method as in claim 24, further comprising advancing a direct cardiac  
2 massage device through the intercostal access tract.